Figure 6 is a graphical representation of a curve which corresponds to Fig. 5, but after a negative electrical stimulation.

Figure 7 is a graph showing the development of the action potential of the maxillary nerve 5 minutes after the application of capsaicin.

Figure 8 is a graphical comparison of the variations in the action potential of the maxillary nerve (V2, sensory) in response to an electrical stimulation at face level before and immediately after the topical application of xylocaine (5%).

DETAILED DESCRIPTION OF THE INVENTION--

At page 18, between lines 1 and 2 thereof, please add the following new paragraph:

--What is claimed is:--

On a separate, new page 22, please add the following new section heading and paragraph containing an Abstract of the Disclosure:

--ABSTRACT OF THE DISCLOSURE

Methods for non-invasive, *in vivo* determination of the conductivity of nerves in a region of skin and apparatus for carrying out such methods are described, wherein the methods comprise: (a) providing a skin substrate to be analyzed; (b) applying a first non-invasive electrode to a measuring point of the skin substrate; (c) applying a second non-invasive electrode to a second point of the skin substrate; (d) subjecting the skin substrate to stimulation; and (e) analyzing a change in an electrical signal detected by the first and second non-invasive electrodes; wherein the first and second non-invasive electrodes are associated with an evaluation circuit for analyzing the electrical signal detected by the first and second non-invasive electrodes, the evaluation circuit comprising at least one amplifying element, at least one processing element, at least one recording element, and at least one microprocessor.--

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